

COMMITTEE ON LEGISLATIVE RESEARCH  
OVERSIGHT DIVISION

**FISCAL NOTE**

L.R. No.: 0171-03  
Bill No.: HB 699  
Subject: Transportation; Motor Fuel; Motor Vehicles  
Type: Original  
Date: February 23, 2015

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Bill Summary: This proposal expands the fuel conservation for state vehicles program to vehicles with a manufacturer's gross vehicle weight rating of more than eight thousand five hundred pounds.

**FISCAL SUMMARY**

<b>ESTIMATED NET EFFECT ON GENERAL REVENUE FUND</b>				
<b>FUND AFFECTED</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>Fully Implemented (FY 2022)</b>
General Revenue	\$0	More than (\$113,335)	More than (\$113,335)	More than (\$1,110,683)
<b>Total Estimated Net Effect on General Revenue</b>	<b>\$0</b>	<b>More than (\$113,335)</b>	<b>More than (\$113,335)</b>	<b>More than (\$1,110,683)</b>

Numbers within parentheses: ( ) indicate costs or losses.  
This fiscal note contains 11 pages.

<b>ESTIMATED NET EFFECT ON OTHER STATE FUNDS</b>				
FUND AFFECTED	FY 2016	FY 2017	FY 2018	Fully Implemented (FY 2022)
Other Funds*	\$0	More than (\$134,402)	More than (\$89,868)	More than (\$1,426,821)
<b>Total Estimated Net Effect on <u>Other</u> State Funds**</b>	<b>\$0</b>	<b>More than (\$134,402)</b>	<b>More than (\$89,868)</b>	<b>More than (\$1,426,821)</b>

\* All costs reflect the additional incremental cost to purchase alternative fuel vehicles with Gross Vehicle Weight Ratio of 8,500 lbs.

\*\* Other Funds detail can be found on page 6

<b>ESTIMATED NET EFFECT ON FEDERAL FUNDS</b>				
FUND AFFECTED	FY 2016	FY 2017	FY 2018	Fully Implemented (FY 2022)
<b>Total Estimated Net Effect on <u>All</u> Federal Funds</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>ESTIMATED NET EFFECT ON FULL TIME EQUIVALENT (FTE)</b>				
FUND AFFECTED	FY 2016	FY 2017	FY 2018	Fully Implemented (FY 2022)
<b>Total Estimated Net Effect on FTE</b>	<b>FTE</b>	<b>FTE</b>	<b>FTE</b>	<b>FTE</b>

☒ Estimated Net Effect (expenditures or reduced revenues) expected to exceed \$100,000 in any of the three fiscal years after implementation of the act.

<b>ESTIMATED NET EFFECT ON LOCAL FUNDS</b>				
FUND AFFECTED	FY 2016	FY 2017	FY 2018	Fully Implemented (FY 2022)
<b>Local Government</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## **FISCAL ANALYSIS**

### **ASSUMPTION**

**Oversight** was unable to receive some of the agency responses in a timely manner due to the short fiscal note request time. Oversight has presented this fiscal note on the best current information that we have or on prior year information regarding a similar bill. Upon the receipt of agency responses, Oversight will review to determine if an updated fiscal note should be prepared and seek the necessary approval of the chairperson of the Joint Committee on Legislative Research to publish a new fiscal note.

#### **§§ 414.400, 414.410 - Fuel Conservation for State Vehicles Program:**

Officials from the **Department of Transportation (MODOT)** assume this proposal expands the definition of the state vehicle fleet to those comprised of all vehicles, including those over 8500 Gross Vehicle Weight (GVW). It then establishes compliance deadlines for meeting the state wide program of achieving a 30% fuel efficiency goal in meeting the federal Corporate Average Fuel Economy Standard (CAFE) in two categories - for vehicles < 8500 GVW by July 1, 2001, and for vehicles > 8500 GVW by July 1, 2017.

MODOT assumes the proposal would significantly expand the universe of vehicles (>8500 Gross Vehicle Weight Rating or GVRW) to be included in the 30 percent alternative fuel use and 50 percent Alternative Fuel Vehicle (AFV) acquisition requirement. The available options for medium-heavy duty alternative fuel vehicles, such as Compressed Natural Gas (CNG) and Liquefied Petroleum Gas (LPG), could result in significantly higher costs to the state, as these options can range \$10,000 or more in incremental cost differences between those vehicles and their conventional fuel powered counterparts.

MODOT notes E85 vehicles are not prominent in this market. Biodiesel is an alternative fuel but does not qualify as an alternative fuel vehicle, since biodiesel use does not require any modifications to a conventional diesel vehicle. Lack of alternative fuel infrastructure and availability of fuel, especially in the case of CNG, poses many challenges, and could result in significantly higher costs to the state, as a fast-fill CNG fueling station can cost in excess of \$100,000 to install.

MODOT estimates an unknown negative impact to the State Road fund beginning in 2017.

ASSUMPTION (continued)

Officials from the **Department of Economic Development - Division of Energy** state the Division of Energy and the Office of Administration jointly implement the State Fleet Efficiency and Alternative Fuel Program (Sections 414.400-414.417, RSMo). The Division of Energy receives reports from each state agency showing its progress in achieving the statutory requirements of efficiency, alternative fuel use and alternative fuel vehicle acquisitions. A state vehicle fleet database of this information is maintained and an annual report is compiled that includes annual fuel consumption, number of vehicles, vehicle miles traveled, average fleet fuel economy, estimated cost savings and state use of alternative fuels.

Division of Energy assumes this proposal would expand the efficiency, alternative fuel use and alternative fuel vehicle acquisition requirements from vehicles with gross vehicle weight ratings (GVWR) of not more than 8,500 pounds to include the larger vehicles with GVWR of more than 8,500 pounds. Specifically, the larger vehicles would need to comply with the following provisions: 30% of all motor fuel purchased annually for use in alternative fuel vehicles must be alternative fuel by July 1, 2017; 10% of new vehicle acquisitions >8500 GVWR must be capable of using alternative fuel between July 1, 2016 and July 1, 2019, increasing to 30% between July 1, 2019 and July 1, 2022, and to 50% each biennial period thereafter. DED assumes this expansion would require, beginning no later than July 1, 2017, the Office of Administration to include in its reporting all pertinent information including but not limited to fuel purchases, vehicle purchases and use of alternative vehicles, for all vehicles including both those under 8500 GVWR and those over 8500 GVWR, to the Division of Energy.

The Division of Energy assumes updating the state fleet database to include all state government fleet vehicles over 8,500 GVWR would cost (\$8,100).

**Oversight** assumes the cost to the Department of Economic Development - Division of Energy to update the fleet database could be absorbed.

Officials from the **Office of Administration (OA)** assume the alternative fuel acquisition requirements for medium/heavy duty vehicles over 8,500 GVWR would be phased in as follows:

- (1) FY17 & FY 18, 10%
- (2) FY 19 – FY 21, 30%
- (3) FY 22 and beyond, 50%

OA assumes when the 30% alternative fuel vehicle purchasing requirements takes place beginning in FY 19, the state would likely need to address alternative fuel refueling infrastructure and possible funding to establish state operated refueling sites for alternative fuel vehicles.

ASSUMPTION (continued)

OA estimates additional annual vehicle purchase costs due to the inclusion of vehicles over 8,500 GVWR are listed below. This table (table 1) includes the incremental/additional cost of acquiring alternative fuel vehicles by fund.

Table 1: Additional/Incremental Cost of Acquiring Alternative Fuel Vehicles by Fund

<b>FUND</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>	<b>FY 22</b>
	10%	10%	30%	30%	30%	50%
General Revenue	(\$113,335)	(\$113,335)	(\$272,004)	(\$204,003)	(\$272,004)	(\$362,672)
Division of Youth Services - Federal & Other					(\$22,667)	
Department of Mental Health - Federal				(\$22,667)	(\$22,667)	
Federal Surplus Property			(\$22,667)		(\$22,667)	
State Fair Fee		(\$22,667)				
Natural Resources Revolving Services	(\$22,667)	(\$22,667)	(\$90,668)	(\$158,669)	(\$136,002)	(\$136,002)
MO Veterans Homes	(\$22,667)			(\$22,667)	(\$22,667)	(\$45,334)
State Facility Maintenance & Operation	(\$22,667)	(\$22,667)	(\$45,334)	(\$22,667)		(\$45,334)
Office of Administration Revolving Administrative Trust	(\$22,667)			(\$22,667)	(\$22,667)	(\$22,667)
Working Capital Revolving	(\$45,334)	(\$22,667)	(\$45,334)	(\$45,334)	(\$22,667)	(\$45,334)
Department of Social Services Federal & Other						(\$113,335)
State Highways & Transportation					(\$22,667)	
Excellence in Education			(\$22,667)			
Petroleum Inspection				(\$22,667)		
Mental Health Trust	(\$22,667)				(\$22,667)	
<b>Total</b>	<b>(\$272,004)</b>	<b>(\$204,003)</b>	<b>(\$498,674)</b>	<b>(\$521,341)</b>	<b>(\$589,342)</b>	<b>(\$770,678)</b>

Source: Office of Administration

ASSUMPTION (continued)

OA assumes agencies would have to carefully identify the proximity of public access alternative fuel refueling stations to where vehicles are stationed. If no public refueling options exist, the state would need to consider construction in locations where concentrations of medium and heavy duty trucks are located.

OA notes the following data from the State Fleet Information System to estimate how many vehicles over 8,500 GVWR would be impacted. This information excludes MoDOT, Conservation, Highway Patrol and State Colleges and Universities.

OA assumes based upon fleet condition estimates compiled in July of 2014, the following number of medium/heavy duty vehicles are in the State Fleet Information System ( > 8,500 GVWR)

GR 405  
Other Funds 513  
**Total: 918**

OA assumes a 15 year replacement cycle for medium/heavy duty vehicles, or 7% of the medium/heavy duty fleet is replaced each year.

OA assumes based upon research of the incremental cost of various alternative fuel medium/heavy duty vehicles (outright purchase or conversion cost increases) the following in table 2.

Table 2: Incremental Cost of Alternative Fuel Vehicles

Incremental Cost Estimates		
Alternative Fuel Option	Low	High
CNG	(\$20,000)	(\$50,000)
Propane	(\$4,000)	(\$12,000)
Hybrid	(\$20,000)	(\$30,000)
<b>Average of CNG, Propane &amp; Hybrid</b>	<b>(\$14,667)</b>	<b>(\$30,667)</b>
*Electric – Double the cost of diesel.		

**Source:** Office of Administration

OA assumes a used average incremental vehicle cost of (\$22,667) (average of \$14,667 and \$30,667) times 10%, 30% or 50% alternative fuel percentage requirements for replacing 7% of the fleet each year.

ASSUMPTION (continued)

OA notes the following additional costs are not included in the fiscal note:

*Refueling Infrastructure:*

OA assumes the costs of new refueling infrastructure was not included in the amount of the fiscal note as research would have to be done to explore options to partner with the private sector or other governmental entities. If the State were to construct new fueling sites, additional funding would be necessary in excess of the amounts of this fiscal note.

*Maintenance Facilities:*

OA assumes for CNG vehicles, modifications to existing state maintenance facilities might be necessary. Due to the increased risk of fire hazard, ventilation has to meet certain standards and the heating systems have to be modified in the event there is a gas leak. The cost to modify existing facilities is unknown. Research would have to be done to determine if there are qualified privately owned maintenance facilities that can service CNG vehicles near where the vehicle is stationed.

*Fueling Costs*

OA assumes the relative costs of the various fueling options were not included in the fiscal note analysis. Total cost of ownership would appropriately consider fuel and maintenance costs along with the capital costs of purchasing the vehicles and/or modifying existing vehicles plus necessary refueling infrastructure. Additional research would be necessary to evaluate the long term cost impact of the various fueling options.

**Oversight** assumes this proposal would result in additional fueling costs, maintenance facility costs, and refueling infrastructure costs, however these costs could not be determined. For the purpose of the fiscal note, Oversight will reflect a cost more than the estimated OA costs for vehicle replacement through FY22 when alternative fuel vehicles gross vehicle weight ratings of more than 8,500 lbs. are fully phased in.

Officials from the **Department of Revenue, Department of Natural Resources, Department of Agriculture, University of Missouri, and Missouri State University** each assume the proposal would not fiscally impact their respective agencies.



<u>FISCAL IMPACT - State Government</u>	FY 2016 (10 Mo.)	FY 2017	FY 2018	Fully Implemented (FY 2022)*
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**GENERAL REVENUE FUND**

Costs - Various Departments

§§ 414.400, 414.410 - Alternative Fuel Vehicles	<u>\$0</u>	More than <u>(\$113,335)</u>	More than <u>(\$113,335)</u>	More than <u>(\$1,110,683)</u>
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**ESTIMATED NET**

**EFFECT ON THE**

**GENERAL REVENUE**

**FUND**

<u>\$0</u>	More than <u>(\$113,335)</u>	More than <u>(\$113,335)</u>	More than <u>(\$1,110,683)</u>
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\* Vehicle replacement costs fully phased in FY 2022 but costs continue beyond FY 2022.

**OTHER FUNDS**

Costs - Various Departments

§§ 414.400, 414.410 - Alternative Fuel Vehicles	<u>\$0</u>	More than <u>(\$134,402)</u>	More than <u>(\$89,868)</u>	More than <u>(\$1,426,821)</u>
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**ESTIMATED NET**

**EFFECT ON OTHER**

**FUNDS**

<u>\$0</u>	More than <u>(\$134,402)</u>	More than <u>(\$89,868)</u>	More than <u>(\$1,426,821)</u>
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\* Vehicle replacement costs fully phased in FY 2022 but costs continue beyond FY 2022.

<u>FISCAL IMPACT - Local Government</u>	FY 2016 (10 Mo.)	FY 2017	FY 2018	Fully Implemented (FY 2022)
	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

### FISCAL IMPACT - Small Business

#### §§ 414.400, 414.410 - Fuel Conservation for State Vehicles Program:

Small businesses could see a direct positive fiscal impact to the extent those small businesses are involved in alternative fuel industries impacted by expanding the provisions of the State Fleet Efficiency and Alternative Fuel Program to vehicles with a gross vehicle weight rating of more than 8,500 lbs.

### FISCAL DESCRIPTION

#### §§ 414.400, 414.410 - Fuel Conservation for State Vehicles Program:

This proposal changes the laws regarding the Fuel Conservation for State Vehicles Program to require that at least 30% of all motor fuel purchased annually for use in alternative fuel vehicles with a gross vehicle weight rating of not more than 8,500 pounds to be alternative fuel by July 1, 2001, and for use in alternative fuel vehicles with a gross vehicle weight rating of more than 8,500 pounds by July 1, 2017. Any state agency that operates a fleet of more than 15 motor vehicles must acquire vehicles capable of using alternative fuels as follows:

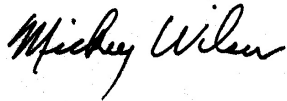
- (1) At least 10% of the vehicles with a manufacturer's gross vehicle weight rating of not more than 8,500 pounds acquired between July 1, 1994, and July 1, 1996, and vehicles with a manufacturer's gross vehicle weight rating of more than 8,500 pounds acquired between July 1, 2016, and July 1, 2019;
- (2) At least 30% of the vehicles with a manufacturer's gross vehicle weight rating of not more than 8,500 pounds acquired between July 1, 1996, and July 1, 1998, and vehicles with a manufacturer's gross vehicle weight rating of more than 8,500 pounds acquired between July 1, 2019, and July 1, 2022; and
- (3) At least 50% of the vehicles acquired between July 1, 1998, and July 1, 2000, and each biennial period thereafter.

Beginning no later than July 1, 2017, the Commissioner of the Office of Administration must report all pertinent information relating to fuel purchases, vehicle purchases, and use of alternative fuel vehicles to the Division of Energy in the Department of Economic Development

This legislation is not federally mandated, would not duplicate any other program and would not require additional capital improvements or rental space.

SOURCES OF INFORMATION

Office of Administration  
Department of Economic Development -  
Division of Energy  
Department of Transportation  
Department of Revenue  
Department of Agriculture  
Department of Natural Resources



Mickey Wilson, CPA  
Director  
February 23, 2015

Ross Strobe  
Assistant Director  
February 23, 2015